

What is claimed is:

1. A method for evaluating the performance of multiple medical devices from a medication management unit, comprising:

collecting operation information from each medical device at the medication management unit;

generating a statistical measure of variations between the operation information from each medical device at the medication management unit; and

analyzing the statistical measure at the medication management unit to determine if a select medical device has operation information indicating that the select medical device is operating at a level statistically different than non-select medical devices.

2. The method of claim 1, wherein the operation information is selected from the group consisting of air alarm events, occlusion alarm events, battery usage data, and screen response time.

3. The method of claim 1, further comprising the step of generating a quality control alert at the medication management unit where the statistical measure is outside a given threshold.

4. The method of claim 3, further comprising the step of sending the quality control alert to a clinician selected from a group consisting of a caregiver, a biomedical engineer, caregiver supervisor, and a doctor.

5. The method of claim 1, wherein the steps of claim 1 are at least partially performed while one of the medical devices is performing an infusion.

6. The method of claim 1, further comprising the step of collecting the operation information from each medical device in real-time.

7. A method for evaluating the performance of a medical device from a medication management unit, comprising:

collecting operation information from the medical device at the medication management unit;

generating a statistical measure of variations between the operation information from the medical device and a

predetermined norm at the medication management unit; and analyzing the statistical measure at the medication management unit to determine if the medical device has operation information indicating that the medical device is operating at a level statistically different than the norm.

8. A medication management system for evaluating the performance of multiple medical devices from a medication management unit, comprising:

a plurality of medical devices in electronic communication with the medication management unit, each having a processor and a memory coupled to the processor, the memory containing programming code executed by the processor to output medical device specific operation information; and

a medication management unit having a processing unit and a storage medium coupled to the processing unit, the storage medium containing programming code executed by the processing unit to:

collect operation information from each medical device at the medication management unit,

generate a statistical measure of variations between the
operation information from each medical device at the
medication management unit, and

analyze the statistical measure at the medication management
unit to determine if a select medical device has
operation information indicating that the select
medical device is operating at a level statistically
different than the non-select medical devices.

9. A medication management system for evaluating the performance
of a medical device from a medication management unit, comprising:

a medical device in electronic communication with the medication
management unit, the medical device having a processor and
a memory coupled to the processor, the memory containing
programming code executed by the processor to output medical
device specific operation information; and

a medication management unit having a processing unit and a storage
medium coupled to the processing unit, the storage medium
containing programming code executed by the processing unit
to:

collect operation information from the medical device at the
medication management unit,

generate a statistical measure of variations between the
operation information from the medical device and a
predetermined norm at the medication management unit,
and

analyze the statistical measure at the medication management unit
to determine if the medical device has operation information
indicating that the medical device is operating at a level
statistically different than the norm.

10. A method for evaluating the performance of multiple caregivers from a medication management unit, comprising:

collecting caregiver action information regarding multiple caregivers from one or more medical devices at the medication management unit;

generating a statistical measure of variations between the caregiver action information from the medical devices at the medication management unit; and

analyzing the statistical measure at the medication management unit to determine if a select caregiver has caregiver action information indicating that the select caregiver is operating at a level statistically different than the non-select caregiver.

11. The method of claim 10, wherein the caregiver action information is selected for the group consisting of task lists, medication administration records, and treatments.

12. The method of claim 10, further comprising the step of generating a quality control alert at the medication management unit where the statistical measure is outside a given threshold.

13. The method of claim 12, further comprising the step of sending the quality control alert to a clinician selected from a group consisting of a caregiver, a biomedical engineer, caregiver supervisor, and a doctor.

14. The method of claim 10, wherein the steps of claim 10 are at least partially performed while one of the medical devices is performing an infusion.

15. The method of claim 10, further comprising the step of collecting the caregiver action information from the medical devices in real-time.

5 16. A method for evaluating the performance of a caregiver from a medication management unit, comprising:
collecting caregiver action information regarding the caregiver from one or more medical devices at the medication management unit;
10 generating a statistical measure of variations between the caregiver action information from the medical devices and a predetermined norm at the medication management unit; and
analyzing the statistical measure at the medication management unit to determine if the caregiver has caregiver action
15 information indicating that the caregiver is operating at a level statistically different than the norm.

17. A medication management system for evaluating the performance of multiple caregivers from a medication management unit, comprising:
20 one or more medical devices in electronic communication with the medication management unit, each having a processor and a memory coupled to the processor, the memory containing programming code executed by the processor to output caregiver action information; and
25 a medication management unit having a processing unit and a storage medium coupled to the processing unit, the storage medium containing programming code executed by the processing unit to:

collect caregiver action information regarding multiple
caregivers from the medical devices at the medication
management unit,

generate a statistical measure of variations between the
caregiver action information from the medical devices
at the medication management unit, and

analyze the statistical measure at the medication management
unit to determine if a select caregiver has caregiver action
information indicating that the select caregiver is operating
at a level statistically different than the non-select
caregiver.

18. A medication management system for evaluating the performance
of a caregiver from a medication management unit, comprising:

one or more medical devices in electronic communication with the
medication management unit, each having a processor and a
memory coupled to the processor, the memory containing
programming code executed by the processor to output
caregiver action information; and

a medication management unit having a processing unit and a storage
medium coupled to the processing unit, the storage medium
containing programming code executed by the processing unit
to:

collect caregiver action information regarding the caregiver
from the medical devices at the medication management
unit,

generate a statistical measure of variations between the
caregiver action information from the medical devices
and a predetermined norm at the medication management
unit, and

analyze the statistical measure at the medication management
unit to determine if the caregiver has caregiver action

information indicating that the caregiver is operating at a level statistically different than the norm.

19. A method for adjusting the medical device output conveyed to a caregiver, comprising:

- 5 supplying display criteria to the medical device, where the display criteria is selected from the group consisting of location of the medical device in the hospital, the type of medication being supplied, time of day, caregiver information, patient information; and
- 10 configuring the output of the medical device conveyed to a caregiver based on the display criteria.

20. The method of claim 19, wherein the medical device output includes a visual display on a display screen.

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21. The method of claim 20, further comprising the step of configuring the output of the medical device to present the caregiver with a select display color from multiple given display colors.

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22. The method of claim 20, further comprising the step of configuring the output of the medical device to present the caregiver a select brightness level from multiple given brightness levels.

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23. The method of claim 20, further comprising the step of configuring the output of the medical device to present the caregiver with a select language from multiple given languages.

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24. The method of claim 19, wherein the output of the medical device includes a sound device.

25. The method of claim 24, further comprising the step of configuring the output of the medical device to present the caregiver with a select warning tone from multiple given warning tones.

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26. The method of claim 24, further comprising the step of configuring the output of the medical device to present the caregiver with a select volume from multiple given volumes.

10 27. The method of claim 19, wherein the display criteria is user information selected from the group consisting of caregiver training level, caregiver security level access, caregiver experience, caregiver error rate, and caregiver response time.

15 28. The method of claim 19, wherein the patient information includes a patient diagnosis and disease state.

29. The method of claim 19, wherein the patient information includes patient hearing ability.

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30. A medication management system for adjusting the medical device output conveyed to a caregiver, comprising:

a medication management unit having a processing unit and a storage medium coupled to the processing unit, the storage medium containing programming code executed by the processing unit to:

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receive display criteria, where the display criteria is selected from the group consisting of location of the medical device in the hospital, time of day, the type of medication being supplied, caregiver information, patient information, and

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instruct a medical device to configure an output of the
medical device conveyed to a caregiver based on the
display criteria received by the medication management
unit; and

5 a medical device in electronic communication with the medication
management unit, having a processor and a memory coupled to the
processor, the memory containing programming code executed by
the processor to configure the output of the medical device
conveyed to a caregiver based on the instruction from the
10 medication management unit.

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